Has a 1970s ban on oil exports outlived its usefulness?

BY JACQUELINE BENTON

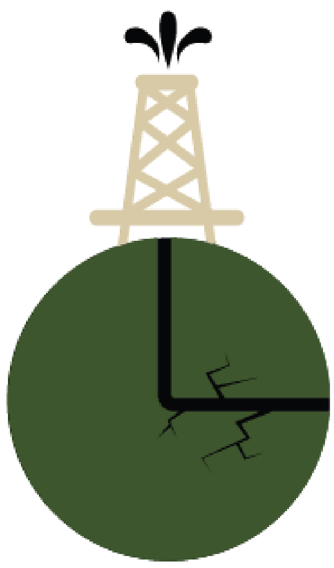
It's a hot topic in U.S. energy circles these days — top federal administrators are considering ending a decades-old ban on crude oil exports created in the wake of the 1973-74 OPEC oil embargo, potentially changing the game significantly for global oil producers, traders, refiners and consumers.

And closer to home, Texans are wondering: what happens to our state if the ban is lifted? Some estimate that removal of the export ban would net the state tens of thousands of new jobs due to additional oil exploration and production — but could crimp other aspects of the energy industry.

Of course, the current shale boom has already changed the game. According to the U.S. Energy Information Administration, American oil production has risen by 36 percent in just four years, and many industry observers predict the nation may soon surpass Saudi Arabia and Russia to become the world's leading oil producer.

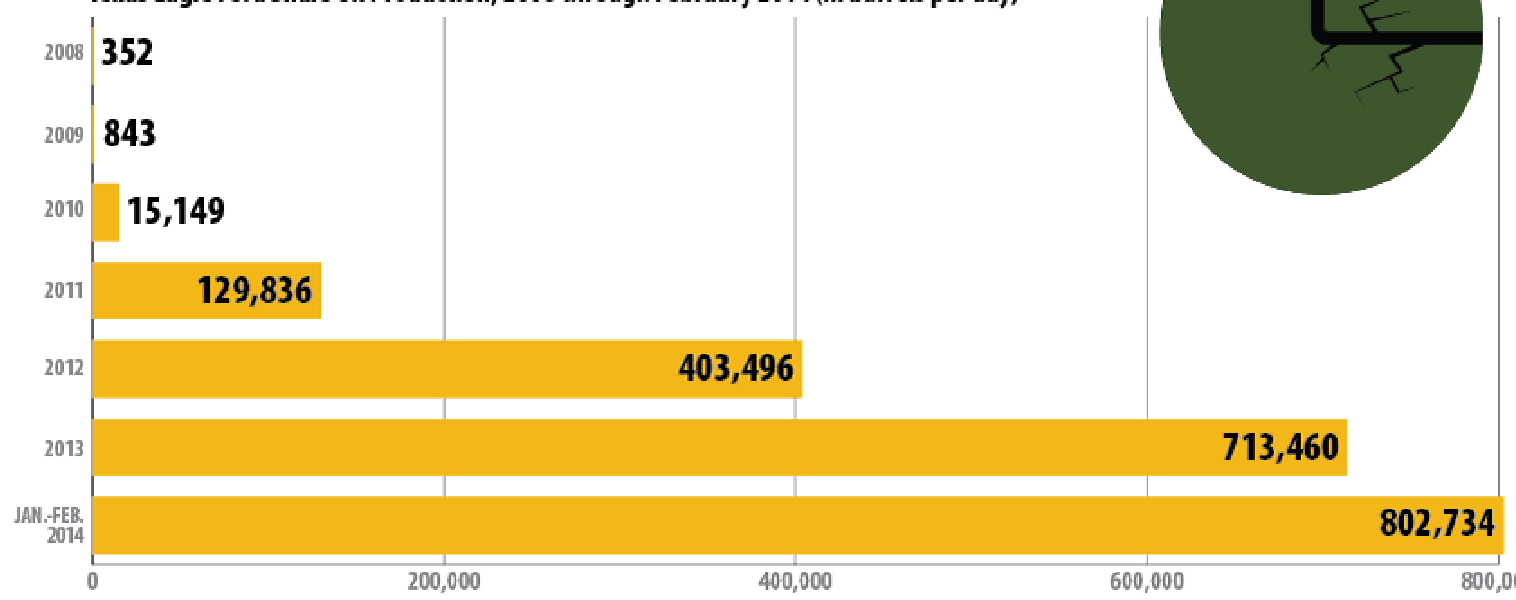
And Texas is at the center of the boom, as the nation's largest energy producer as well as its most important refiner of petrochemicals. Texas crude oil production has more than doubled in just five short years, rising to more than 2.8 million barrels per day in January 2014.

GAME-CHANGING OIL PRODUCTION FROM SHALE



Railroad Commission data on Texas' Eagle Ford Shale illustrates the astonishing growth of oil production in shale and other "tight" rock formations. Since 2008, Eagle Ford production has risen from essentially nothing to nearly 803,000 barrels a day, and now accounts for more than a third of all Texas oil production.

Texas Eagle Ford Shale Oil Production, 2008 through February 2014 (in barrels per day)



SOURCE: Railroad Commission of Texas

A night view of a derrick drilling in the Eagle Ford Shale.

In the midst of the boom, however, the Lone Star State has found itself in a paradoxical quandary: once extracted, much of the oil produced here just sits, waiting to be refined.

A Crude Conundrum

In 1975, the U.S. government banned crude oil exports as the result of the embargo imposed by the Organization of Petroleum Exporting Countries (OPEC). With the exception of small amounts of crude oil exported to Canada (which may not be re-exported) and some Alaskan-produced oil, U.S. crude oil still cannot be sold abroad.

The ban, however, "was put into place in a different time," says petroleum economist Karr Ingham, owner of InghamEcon, LLC, an economic analysis and research firm. "The prevailing thought was to protect and support greater domestic production.

"But U.S. crude oil production was on the decline, and that decline was thought to be irreversible," he says. "So, with our energy consumption on the rise, we had to import. The political logic of the time didn't work in terms of stimulating production within the U.S. — as recently as 2006, we were importing 65 to 70 percent of our crude oil."

But since then, oil production technology has changed, and with it the oil business. Horizontal drilling, hydraulic fracturing and other technical developments have extended production in mature oil and natural gas fields and opened up new areas once considered impossible to produce.

And given the state's preeminent position in petrochemical refining, this ocean of oil would seem to be a boon for Texas refiners, right?

Not so fast, says Ingham.

"We are producing a lot of oil now, but we're not well set up to refine this oil in our refineries," he says. "We're better positioned to refine oil from elsewhere."

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Sweet and Sour

Much Texas oil is renowned as a "light, sweet crude," low in sulfur and highly desirable for the manufacture of gasoline and other fuels. Oil obtained through fracking produces a high yield of this coveted commodity.

Due to America's long reliance on imported oil, however, its refineries — and those in Texas and along the Gulf Coast in particular — are geared largely to process heavier, sulfur-rich "sour" oil from other countries.

To be refined in the U.S., much of the oil produced in the current boom has to be blended with heavier crudes.

"Until it can be blended, it has to be stored — storage is really the hang-up," says Michelle Michot Foss, Ph.D., chief energy economist and program manager of the University of Texas' Center for Energy Economics.

Of course, U.S. refiners could retool their plants for U.S. oil, and perhaps they will — eventually.

"It's a problem we could solve over a long period of time — it would take awhile to get our refining complex to where we can handle light, sweet oil," Ingham says. "But trade would be a solution while we're waiting."

Foss agrees. "We have now, and may have in the future, a glut of light crude oil. Our domestic prices are low [while] international prices are higher, reflecting shortages elsewhere," she says. "Our producers are losing money, and would have the opportunity to rebalance by exporting, ensuring a more sustainable, robust domestic industry."

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In a Post-Ban World

So if the export ban is lifted, what could we expect?

One immediate effect is likely to be increased production, and all the economic activity that goes with it.

"I think the integrated major oil companies and [producers] want to export because they'd see an increase in their revenues — it would probably raise oil prices," says Doug Ridge, a workforce and education specialist with the West Texas Energy Consortium and a consultant to energy firms. "The more open the market, the more they'll be able to chase drilling prospects."

A recent study by the consulting firm ICF International estimates that crude exports could generate nearly 41,000 additional Texas jobs and $5.2 billion in additional state income by 2020.

OIL EXPORTS COULD BOOST TEXAS EMPLOYMENT, INCOME

An ICF International study recently prepared for the American Petroleum Institute suggests that lifting the federal ban on oil exports could generate up to 41,000 additional Texas jobs and $5.2 billion in additional Texas income by 2020.

The estimates were reported for "low-differential" and "high-differential" scenarios based primarily on the speed with which the energy industry adapts to producing for export, and for different "multipliers" that estimate the additional economic effects of income earned by the additional employees.

ESTIMATED TEXAS JOB AND INCOME INCREASES FROM OIL EXPORTING, 2020

	LOW: 1.3 MULTIPLIER	LOW: 1.9 MULTIPLIER	HIGH: 1.3 MULTIPLIER	HIGH: 1.9 MULTIPLIER
EMPLOYMENT INCREASE	**7,927**	**12,404**	**27,567**	**40,921**
INCOME INCREASE (IN BILLIONS)	**$1.44**	**$1.89**	**$3.87**	**$5.21**

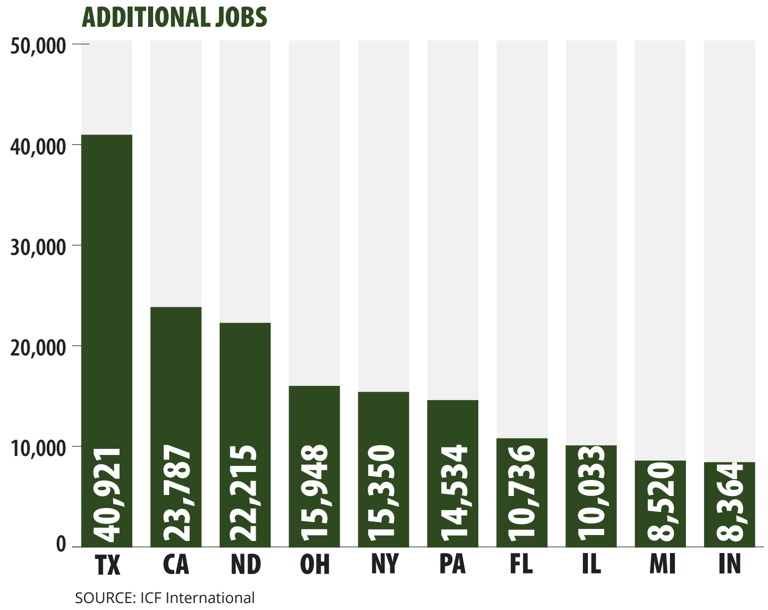
SOURCE: ICF International

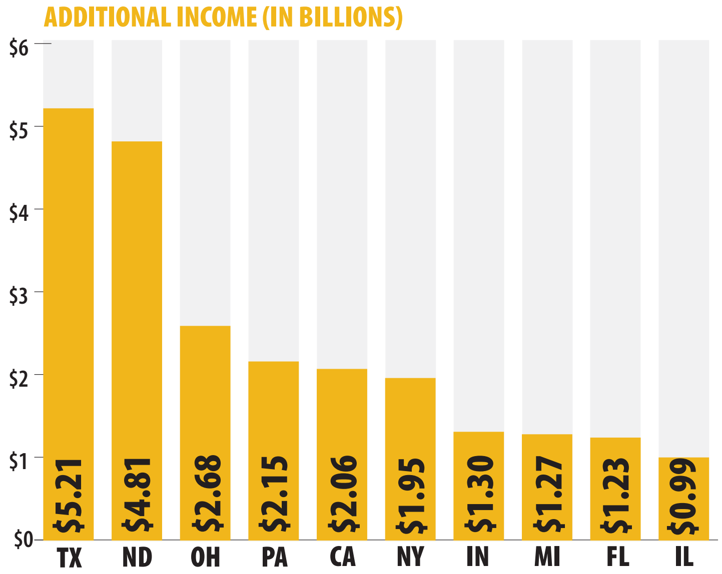
BIGGEST BENEFITS FROM OIL EXPORTS

According to ICF International, Texas would be the nation's biggest beneficiary of oil exporting.

TOP 10 STATES FOR ECONOMIC GAINS FROM OIL EXPORTING

(Based on ICF International's high-differential/high multiplier scenario)





SOURCE: ICF International

But economic shifts as significant as removing the export ban will always produce winners and losers, and it wouldn't necessarily benefit all players in the oil industry.

"The independent refiners don't like it because it squeezes their margins," Ridge says. "They would have to be buying at a higher price. [And] the big guys are already constrained, having invested billions and billions of dollars to prepare for heavy sour crude from countries like Venezuela and Mexico. So it's hard [for them] to adapt to the changing market we've seen."

And what about the issue that concerns most consumers, the price at the pump?

The ban was, of course, put in place largely as a way to help guarantee American fuel supplies and thus keep gasoline prices from spiraling out of control. Foss feels, however, that oil exports are unlikely to have significant effects on gas prices.

"It's possible that U.S. customers would feel price effects, up or down, as domestic and international prices are linked," she says. "But [free] trade makes markets more flexible and responsive."

Due to America's long **reliance on imported oil**, however, its **refineries** — and those in Texas and along the Gulf Coast in particular — are **geared** largely **to process** heavier, sulfur-rich **"sour" oil** from other countries.

Yellow Light Means Caution

Ridge says that any federal move toward lifting the ban should be taken with extreme caution. Easy first steps could include testing markets and changing the classification on some related products to exclude them from the ban.

"I think the answer is to do this slowly: we test the market with the Strategic Petroleum Reserve, and look at other alternatives," says Ridge. "We can reclassify the heavy gases produced with oil that right now are considered crude. Some of these condensates can be reclassified and exported today, and that would help the Texas market because we have a lot."

And lifting the ban might not take a literal "act of Congress." In March, U.S. Senator Lisa Murkowski, a ranking member of the U.S. Senate Committee on Energy and Natural Resources, called for the executive branch to use its authority to permit crude oil exports under certain conditions.

Ridge believes Murkowski and others espousing an end to the ban have a good case.

"The jobs created in the energy industry, the impact on our balance of trade, are significant," he says. "The argument is turning into how much, how soon. There are interesting ideas, such as doing swaps with Mexico for their sour crude, so that both sides can benefit.

"But do we just blindly open this market up? I think there are too many questions about it, and it's like anything else: you want to test the market," Ridge says. "There are ways to do that without turning the [refining] industry upside down. The effect on Texas is going to be interesting either way, because we have the largest petrochemical processing complex outside of Europe."

Will the Ban Bring a Slowdown?

As for refining more sweet crude here, Foss says some headway is being made. "There is some new investment in smaller, simpler refineries and 'toppers' — plants that can remove lighter [oil] before the heavier oil goes to more complex facilities," she says.

But at present, the state and nation simply do not have enough facilities to process all the light crude oil being produced by U.S. fracking, and with the export ban firmly in place, this is a worrisome proposition for some industry experts.

Ingham, for instance, notes that without export ability or greater refining capacity for light crude, "Texas producers will be forced by the marketplace, which is affected by artificial restraints, to produce less over time, because there's no place for it to go.

"We've already seen what this will look like," Ingham says.

“Eagle Ford [producers] saw downward pressure on crude oil pricing because we could not get it to the marketplace.”

If the ban is not lifted, Ingham’s economic prediction for the Lone Star State is cloudier than it might be otherwise.

“In the future, to one degree or another, West Texas crude oil production and the activity that comes with it would be dampened,” he says. “This would mean Texas and similar regions would be denied the effect of full market price and some measure of economic growth and benefit from oil production. In Texas, that means fewer jobs and a lower amount of beneficial economic activity.”

“The state’s economy will continue to benefit from petroleum production, of course, but the full benefit can be achieved only by opening markets,” he says.